



Baked in vs. Brushed On

Integrating IA Into Major Acquisition Programs

Presented by:
Dominic Cussatt (IBM)
ASD (NII) Information Assurance
703-604-1480 (x119), dominic.cussatt.ctr@osd.mil

Agenda

IA in Major Acquisition Programs Overview (25 Minutes)

- Introduction: Mr. Eustace King, Deputy Director for Technology and Capabilities
- New Policy and Guidance
- IA Assistance and Supporting Resources for the Acquisition PMO
- Addressing IA in Acquisition Documentation
- Q&A

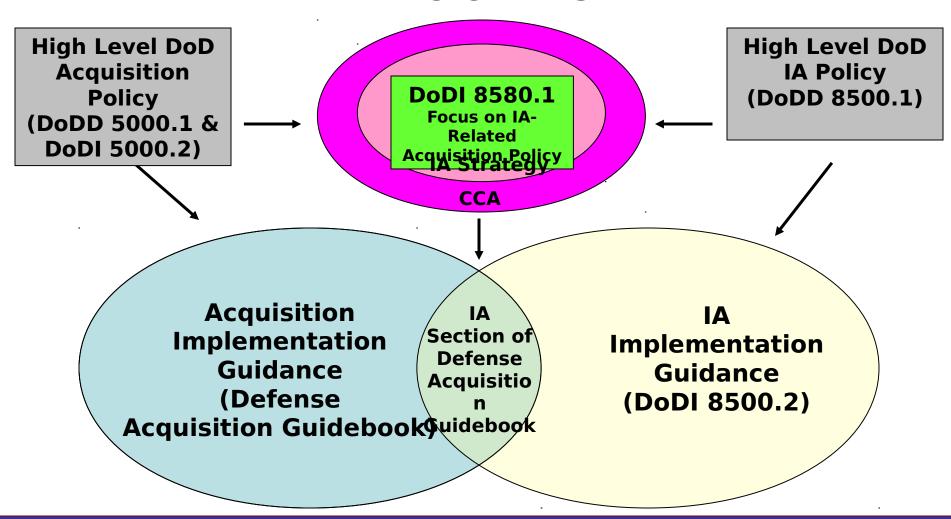
IA in Acquisition Documentation Review (35 Minutes)

- IA Considerations for TEMP & Acquisition Strategy
- Acquisition IA Strategy Template Review

New Policy and Guidance

- DoDI 8580.1 "IA in the Defense Acquisition System"
- •IA Guidance to Acquisition Programs in the "Defense Acquisition Guidebook"
- •CJCSI 3170.01 (Joint Capabilities Integration and Development System [JCIDS])

New Policy and Guidance "Where it fits"



DoDI 8580.1 "IA in the Defense Acquisition System"

- Very little new policy is introduced by the instruction
- Captures the acquisition-related IA policies of DoDD 8500.1 and DoDI 8500.2
- Intent is to make existing IA policy more accessible and more easily understood by the acquisition community
- It describes required and recommended levels of IA activities relative to the acquisition of systems and services.
- It also describes the essential elements of an Acquisition IA Strategy, its applicability, and prescribes an Acquisition IA Strategy submission and review process.
- Implementing guidance is found in the "Defense Acquisition Guidebook"
- An 8580.1 FAQ is available.

DoDI 8580.1 "IA in the Defense Acquisition System" (Cont'd)

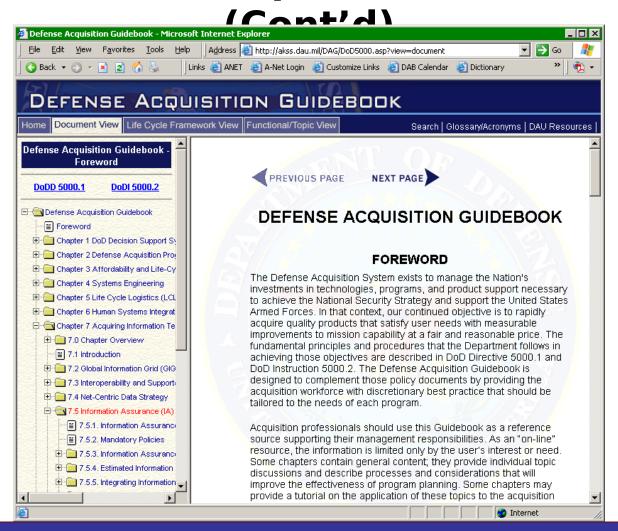
Some Major Points within the Document:

- All acquisitions of mission critical or mission essential IT systems, as defined in DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, shall have an adequate and appropriate Acquisition IA Strategy that shall be reviewed prior to all acquisition milestone decisions, program decision reviews, and acquisition contract awards.
- Heads of DoD Components will ensure implementation of IA
- PMs will:
 - appoint IA Manager
 - ensure Mission Assurance Category (MAC) and Confidentiality levels are identified
 - identify baseline IA controls
 - integrate IA
 - plan and execute DITSCAP
 - provide updates to IIPT and OIPT
- Acquisition IA Strategy will be approved by Component CIO and reviewed by DoD CIO for all MAIS and ACAT 1D programs
 - DoD CIO review for all other programs is delegated to Component CIO

IA Guidance to Acquisition Programs in the "Defense Acquisition Guidebook"

- •Contains the implementing guidance for DoDI 8580.1 "IA in the Defense Acquisition System".
- Is a living document
- Location: http://akss.dau.mil/DAG/

IA Guidance to Acquisition Programs in the "Defense Acquisition Guidebook"



IA Guidance to Acquisition Programs in the "Defense Acquisition Guidebook" (Cont'd)

7.5 Information Assurance (IA)

- 7.5.1. Information Assurance (IA) Overview
- 7.5.2. Mandatory Policies
- 7.5.3. Information Assurance (IA) Integration into the Acquisition Life Cycle
- 7.5.4. Estimated Information Assurance (IA) Activity Durations and Preparation Lead Times
- 7.5.5. Integrating Information Assurance (IA) into the Acquisition Process
- 7.5.6. Program Manager (PM) Responsibilities
- 7.5.7. Information Assurance (IA) Controls
- 7.5.8. Information Assurance (IA) Testing
- 7.5.9. Acquisition Information Assurance (IA) Strategy
- 7.5.10. DoD Information Technology Security Certification and Accreditation Process (DITSCAP)
- 7.5.11. Software Security Considerations
- 7.5.12. Information Assurance (IA) Definitions

CJCSI 3170.01 (Joint Capabilities Integration and Development System [JCIDS])

- Purpose is to establish the policies and procedures of the Joint Capabilities Integration and Development System (JCIDS).
- The procedures established in the JCIDS support the Chairman of the Joint Chiefs of Staff (CJCS) and the Joint Requirements Oversight Council (JROC) in identifying, assessing and prioritizing joint military capability needs.
- Transition to Net-Ready Key Performance Parameters (KPP), which include IA.

IA Assistance and Supporting Resources for the Acquisition PMO

- DIAP Acquisition Team
- DAU Learning Module "IA for PMs"
- "IA in Acquisition" Section of the DAU Acquisition Community Connection IT Community of Practice (CoP)
- Other Resources

DIAP Acquisition Team

Eustace King

Deputy Director for Technology and Capabilities OASD (NII) Defense-wide Information Assurance Program (DIAP) Crystal Gateway 3, Suite 1101 Office 703-602-9969 eustace.king@osd.mil

Dominic A. Cussatt, IBM Business Consulting Services OASD (NII) Defense-wide Information Assurance Program (DIAP) Crystal Gateway 2, Suite 910 Office 703-604-1480 x119 Fax 703-604-1493 dominic.cussatt.ctr@osd.mil

Arthur King, IBM Business Consulting Services
OASD (NII) Defense-wide Information Assurance Program (DIAP)
Crystal Gateway 2, Suite 910
Office 703-604-1480 x104
Fax 703-604-1493
arthur.king.ctr@osd.mil

DIAP Acquisition Team (Cont'd)

Our Role:

- Participate in acquisition program IIPTs
- Provide IA Guidance to Program IA POCs
- Conduct Early Coordination Reviews of Acquisition IA Strategies
- Conduct Formal DoD CIO Reviews of Acquisition IA Strategies for CCA Compliance
- Coordinate on program TEMPs, Acquisition Strategies, Acquisition Program Baselines, Acquisition Decision Memorandums, and JCIDS Documents
- Propose/develop acquisition related IA policy, guidance, and training

DAU Learning Module "IA for PMs"

Located at the Defense Acquisition University's (DAU) Continuous Learning Center:

http://clc.dau.mil/kc/no_login/portal.asp

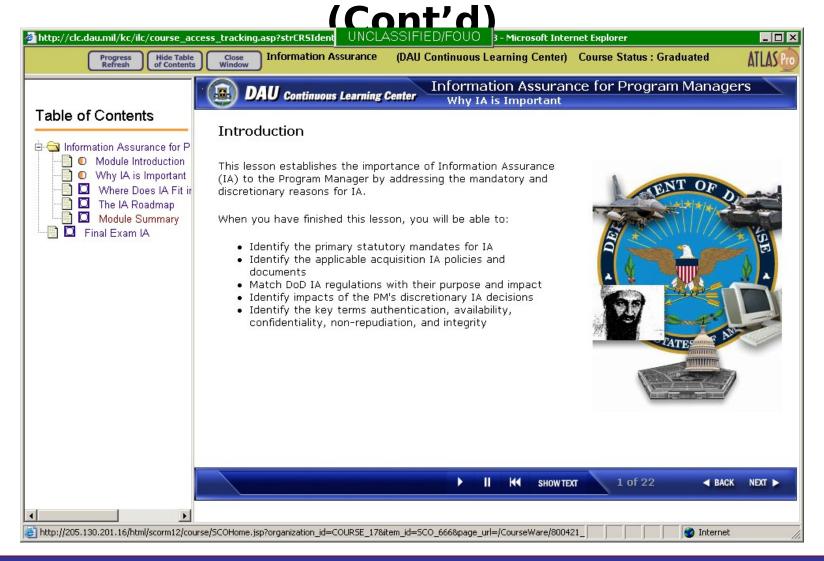
Course Name: "Information Assurance"

Description: Focuses on describing the importance of Information Assurance, the Program Manager's responsibilities, and steps for integrating IA into an acquisition program.

DAU Learning Module "IA for PMs" (Cont'd)



DAU Learning Module "IA for PMs"



IA in Acquisition Section of the DAU Acquisition Community Connection IT Location: Community of Practice (CoP)

- http://acc.dau.mil
- Click on "IT CoP" Link

Top Level Links for "Information Assurance (IA) in Acquisition":

- 1) Introduction to IA in Acquisition
- 2) IA in the Acquisition Lifecycle (The IA Roadmap)
- 3) Emerging Issues (Coming Soon)
- 4) Policy & Guidance Page
- 5) Training Center
- 6) Community Connection
- 7) IA Resource Links
- 8) What's New

IA in Acquisition Section of the DAU IT CoP (Cont'd)



IA in Acquisition Section of the DAU IT CoP

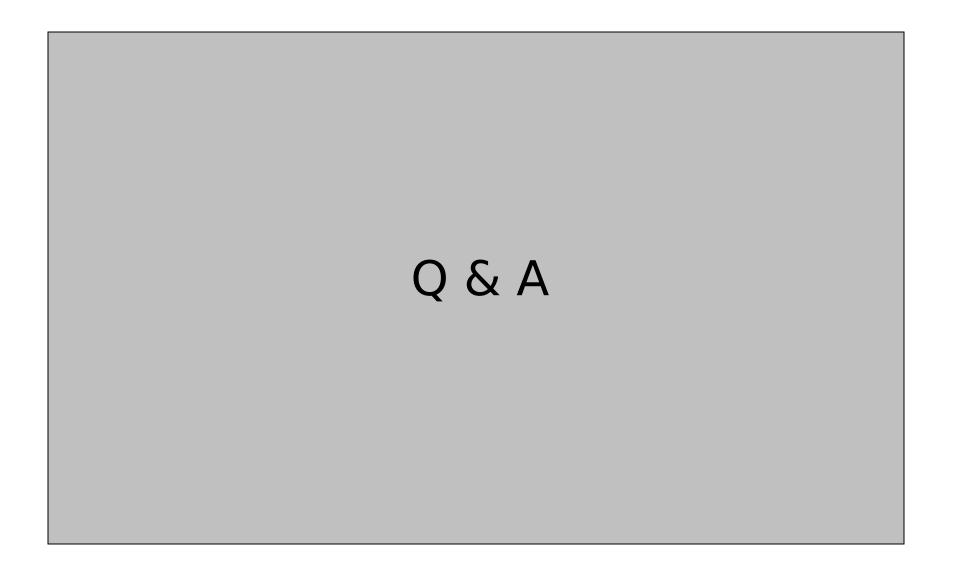


Other Sources of IA Assistance

- Your Component CIO IA staff
- Your Major Command/Systems Command CIO office IA staff
- Your Program Executive Office
- The IA Support Environment (IASE)
 Website (http://iase.disa.mil)
 - DoD IA Tools & Resources
 - IA Document Library
 - "Ask the Experts"
 - Policy and Guidance
 - Solutions Database
 - IA Training

Addressing IA in Acquisition Documentation

- Acquisition IA Strategy
- TEMP
- Acquisition Strategy
- JCIDS Documents (e.g., ICD, CDD, CPD, etc.)



IA in Acquisition Documentation Review

IA Considerations for TEMP

IA Considerations for TEMP

From the DoD 5000 Series:

- <u>Developmental Test and Evaluation (DT&E)</u>
 - Conduct information assurance testing on any system that collects, stores, transmits, or processes unclassified or classified information
 - Support the DoD Information Technology Security Certification and Accreditation Process and Joint Interoperability Certification process
- Operational Test and Evaluation (OT&E)
 - All weapon, C4ISR, and information programs that are dependent on external information sources, or that provide information to other DoD systems, shall be tested and evaluated for **information assurance**
 - Optional Guidance from 5002.R
 - Testing to ensure IA measures satisfy ORD and System Security Authorization Agreement (SSAA) requirements
 - Determine the level of risk associated with operating the system and the extent of security testing required
 - IA threat reconstitution/recovery should also be tested during OT&E
- * Information Assurance T&E Considerations are also documented in the IA Section of the Defense Acquisition Guidebook

IA Considerations for TEMP (cont'd)

Other Checkpoints:

- Designated Approval Authority (DAA) and Certification Authority (CA) clearly identified
- If there is a split-system certification requirement (DITSCAP and DCID 6/3), is the certification approach clearly described (multiple certifiers, etc.)?
- TEMP should be in sync with Acquisition IA Strategy
- Certifying activity organizations, and other IA testers, are tasked in the document
- Test Schedule clearly depicts important C&A prerequisites to other testing events

IA Considerations for TEMP (cont'd)

Capstone TEMP (CTEMP):

If a Capstone TEMP for a Family of Systems (FoS) or System of Systems (SoS), does the CTEMP clearly communicate what aspects of IA testing are within the CTEMP scope vs. the system-level TEMPs?

That is, does the CTEMP:

- Reflect the approach of the Capstone Acquisition IA Strategy?
- Clearly describe any requirements for IA integration testing across systems?
- Clearly identify an integrated test schedule for IA, if appropriate?
- Clearly identify any Capstone IA requirements for IA testing?
- Clearly identify whether C&A roles, resources and activities will be prescribed/integrated at the Capstone or system level?
- Clearly identify what IA testing activities will be planned and documented at the system TEMP level?

IA Considerations for Acquisition Strategy

IA Considerations for Acquisition Strategy

Sample IA section of the Acquisition Strategy excerpt:

The ____ PMO has reviewed all appropriate Information Assurance (IA) policy and guidance, and has addressed the implementation of these IA considerations in the ____ Program Information Assurance Strategy. IA requirements shall be addressed throughout the system life cycle in accordance with DoD Directive 8500.1, DoD Instruction 8500.2, DoD Instruction 5200.40, "Department of Defense Information Technology Security Certification and Accreditation Process (DITSCAP)," [include: "and Director of Central Intelligence Directive 6/3" but only if system handles SCI]. The Acquisition IA Strategy is an integral part of the program's overall acquisition strategy, identifying the technical, schedule, cost, and funding issues associated with executing requirements for information assurance. The following summarizes significant IA considerations impacting the program's acquisition strategy...

IA Considerations for Acquisition Strategy (Cont'd)

IA Technical Considerations:

- Commercial-Off-The-Shelf (COTS) IA and IA-enabled products
- GOTS IA or IA-enabled products

• IA Schedule Considerations:

- IA certification and accreditation timeline
- Key milestones integrated into the program's Test & Evaluation Master Plan (TEMP)

IA Cost Considerations:

- Development/procurement of IA solutions
- Test & Evaluation
- Certification & Accreditation of the IA architecture
- O&M costs related to maintaining the system security posture following deployment

IA Funding Considerations:

All IA lifecycle costs

IA Staffing and Support Issues:

- Adequately staffed to support IA requirements
- Information Assurance Manager appointed, in accordance with DoDD 8500.1

• Other Significant Acquisition IA Issues as Required

Acquisition IA Strategy

Acquisition IA Strategy

- Purpose and scope of the Acquisition IA Strategy
- How do I know if I need to have an Acquisition IA Strategy?
- Acquisition IA Strategy template is available, but format is not mandatory.

Acquisition IA Strategy Template Review

Program Category and Life Cycle Status:

- Acquisition Category (ACAT)
- Current acquisition life cycle phase
- Next milestone decision
- "Mission Critical" or "Mission Essential"
- Program schedule

Mission Assurance Category (MAC) and Confidentiality Level:

- MAC Level
- Confidentiality Level

System Description:

- High-level overview
- Graphic (block diagram) that shows the major elements/subsystems
- System's function
- Information exchange requirements
- Interfaces with other IT or systems
- Primary databases supported
- IA architecture that will secure the system
- IPv6 Policy, if applicable

Threat Assessment (Include as classified annex if appropriate):

- Methodology used to determine threats to the system
 - STAR?
 - "Information Operations Capstone Threat Capabilities Assessment" ? [required for MAIS programs]
- Specific threats unique to this system

Risk Assessment (Include as classified annex if appropriate):

- Program's planned regimen of risk assessments
- Summary of how any completed risk assessments were conducted
- For systems where software development abroad is a possible sourcing option, describe how risk was assessed

• Information Assurance Requirements:

- Methodology used for addressing IA requirements early in the acquisition lifecycle.
- Specify whether any specific IA requirements are linked to the approved governing capabilities documents
- State whether DoDI 8500.2 Baseline IA Controls identified
- Describe how IA requirements implementation costs are included and visible in the overall program budget.

Acquisition Strategy:

- IA requirements in RFP for the System Development and Demonstration Phase
 - operational and system performance specifications
 - system design
 - Engineering
 - testing
 - personnel trained in IA
- Product evaluation of COTS/GOTS IA or IA-Enabled products

<u>DoD Information Technology Security</u> <u>Certification and Accreditation Process</u> <u>(DITSCAP)</u>:

- Name, title, and organization of the Designated Approving Authority (DAA)
- Name, title, and organization of the Certification Authority (CA)
- Name, title, and organization of the User Representative
- Graphical C&A timeline
- Authority to Operate (ATO) or Interim Authority to Operate (IATO) status/plan
- If spiral or incremental development, describe how each increment will be subjected to the certification and accreditation (C&A) process.
- (DCID) 6/3 approach, if Sensitive Compartmented Information (SCI) is involved

IA Testing:

- Discuss how IA testing has been integrated into the program's test and evaluation planning
- Summary of how IA was addressed in the program testing documentation (TEMP)

IA Shortfalls (Include as classified annex if appropriate):

- Identify any significant IA shortfalls
- Proposed solutions and/or mitigation strategies
- Impact of failure to resolve in terms of program resources and schedule, threshold performance, and system or warfighter vulnerability.
- If the solution to an identified shortfall lies outside the control of the program office, provide a recommendation identifying the responsible organization.
- If applicable, identify any Acquisition Decision Memoranda (ADM) that cite IA issues.

Policy/Directives:

- List the primary policy guidance employed by the program in preparing and executing the Acquisition IA Strategy
 - Includes the DoD 8500 series, and Component, MAJCOM/SYSCOM, or program-specific guidance, as applicable.
 - The Information Assurance Support Environment (IASE) web site provides an actively maintained list of relevant statutory, Federal/DoD regulatory, and DoD guidance that may be applicable. This list is available at: http://iase.disa.mil/policy.html.

Relevant Associated Program Documents:

- Provide statement that this version of the Acquisition IA
 Strategy is reflective of the Program ICD/CDD/CPD dated
 _____, and the Program Information Support Plan (ISP) dated
- Note: subsequent revisions to the requirements documents or ISP will require a subsequent revision or revalidation of the Acquisition IA Strategy

Point of Contact:

- Provide the name and contact information for the program management office individual responsible for the Acquisition IA Strategy document.
- It is recommended that the program office's formally appointed Information Assurance Manager be the point of contact.

<u>Acquisition IA Strategy</u> <u>Review Cycle</u>

- Early coordination reviews with DoD and Component CIO IA Staff.
- Component CIO Approval.
- Formal DoD CIO Review.
- CCA Certification Package Input.



Wrap-Up

POCs:

Dominic A. Cussatt, IBM Business Consulting Services
OASD (NII) Defense-wide Information Assurance Program (DIAP)
Crystal Gateway 2, Suite 910
Office 703-604-1480 x119
Fax 703-604-1493
dominic.cussatt.ctr@osd.mil

Arthur King, IBM Business Consulting Services
OASD (NII) Defense-wide Information Assurance Program (DIAP)
Crystal Gateway 2, Suite 910
Office 703-604-1480 x104
Fax 703-604-1493
arthur.king.ctr@osd.mil